

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior listings, and all prior versions, of claims in the application.

LISTING OF CLAIMS:

1. (Currently Amended) An ultrasonic imaging apparatus comprising:
an ultrasonic probe that receives and sends ultrasonic waves from/to an object;
ultrasound image structuring means that generates an ultrasound image on the basis of a reflected echo signal received by the ultrasonic probe;
elastic image structuring means that obtains a physical quantity strain or an elastic modulus of the elasticity of the object of a region corresponding to the ultrasound image on the basis of the reflected echo signal and generates a color elastic image;
display means that overlays the ultrasound image to the color elastic image, or arranges the ultrasound image and the color elastic image and displays the resultant image on a screen; and
setting input means that variably sets a corresponding relationship between a hue of the color elastic image displayed on the screen and the level of a physical quantity the strain or elastic modulus;
~~wherein the color elastic image is generated in accordance with a set physical quantity of the elasticity and a set hue set by the input means, so that at least one of regions having a larger or a smaller physical quantity of the elasticity than the set physical quantity of the elasticity is displayed with the set hue.~~

2. (Currently Amended) An ultrasonic imaging apparatus according to Claim 1, wherein the corresponding relationship between the hue of the color elastic image and the level of a physical quantity the strain or elastic modulus set by the input setting means is displayed on the screen with a color bar.

3. (Currently Amended) An ultrasonic imaging apparatus according to Claim 2, wherein, with the color bar, a large physical quantity amount of the strain or the elastic modulus and a small physical quantity amount of the strain or the elastic modulus are displayed with different hues and the boundary between the hue having the large physical quantity amount of the strain or the elastic modulus and the hue having the small physical quantity amount of the strain or the elastic modulus is displayed with another hue.

4. (Currently Amended) An ultrasonic imaging apparatus according to Claim 3, wherein the boundary between the hue having the large physical quantity amount of the strain or the elastic modulus and the hue having the small physical quantity amount of the strain or the elastic modulus is movably formed with the input setting means.

5. (Currently Amended) An ultrasonic imaging apparatus according to Claim 2, wherein a boundary region of the hue different from the hue of the periphery is settably formed at an arbitrary position of the color bar with the input setting means.

6. (Cancelled).

7. (Currently Amended) An ultrasonic imaging apparatus according to Claim 1, wherein the color elastic image has a peripheral region including a setting value of the physical quantity amount of the strain or the elastic modulus with the hue different from the hue of another region.

8. (Currently Amended) An ultrasonic imaging apparatus according to Claim 7, wherein the hue of the peripheral region has a tone in accordance with the level of the physical quantity amount of the strain or the elastic modulus.

9. (Currently Amended) An ultrasonic imaging apparatus according to Claim 1, wherein the elastic image structuring means comprises:

a color conversion table that is rewritable and sets a relationship between the level of the physical quantity amount of the strain or the elastic modulus and the color of the color elastic image;

calculating means that a physical quantity amount of the strain or the elastic modulus of the elasticity of the object of a region corresponding to the ultrasound image on the basis of the reflected echo signal and; and

color image generating means that reads the color corresponding to the obtained physical quantity amount of the strain or the elastic modulus from the conversion table and generates a color elastic image indicating the distribution of physical quantities, and

wherein the color conversion table is rewritten in accordance with an instruction input from the input-setting means.

10. (Currently Amended) An ultrasonic imaging apparatus according to Claim 9, wherein the elastic image structuring means displays, on the screen of the display means, a color bar indicating a corresponding relationship between the level of the physical quantity amount of the strain or the elastic modulus and the hue of the color elastic image, set to the color conversion table.

11. (Currently Amended) An ultrasonic imaging apparatus according to claim 1 comprising:

an ultrasonic probe that receives and sends ultrasonic waves from/to an object;

ultrasound image structuring means that generates an ultrasound image on the basis of a reflected echo signal received by the ultrasonic probe;

elastic-image structuring means that obtains a strain or an elastic modulus of the object of a region corresponding to the ultrasound image on the basis of the reflected echo signal and generates a color elastic image; and

display means that overlays the ultrasound image to the color elastic image, or arranges the ultrasound image and the color elastic image and displays the resultant image on a screen,

wherein the physical quantity is a strain or an elastic modulus-strain or the elastic modulus is calculated from the amount of motion of the tissue, and the display means displays a color bar indicating a correspondence between the hue of the color elastic image and the strain or the elastic modulus.

12. (Original) An ultrasonic imaging apparatus according to Claim 11, wherein a character indicating the assignment of the hardness of the color elastic image is displayed around the color bar.

13. (New) An ultrasonic imaging apparatus according to Claim 1, wherein the color elastic image is displayed alternatively a larger region or a smaller region than the setting strain or elastic modulus with a set hue.